<b>Work Orde</b> <i>May-27-13 12:4</i>		)2190		*10	12190*						Page 1
	D4078-1	.'		Accept	*N900	040	100	)*	Setup Sta	rt *N	S1*
Revision ID:									Sto	n 4.4.	004
Item Name:	Clamp Half			•	•				. 510	<sup>™</sup> *N	S2*
Start Date:	5/29/13	Start Qty: 12.00	*1	2*	Cust Item I	D:					
Required Date:	6/03/13	Req'd Qty: 12.00	*1	-	Customer:				•		
Reference:	e.		'			5.75					
Approvals:	Process Pl	an: <u>Mし</u> ろ	Date: 13-05	S-30 Tooling:	D	ate:		I	Run Sta	I <i>Z</i> I	R1*
	QC:		_ Date:	SPC (Y/N):	D	ate:			Sto	<sup>p</sup> *N	R2*
Sequence ID/ Work Center II	)	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Re	vision Nbr			- Sealth Manager and Applications						
D4078	В										
100				0.00							
*100*								12			11/3-6-
Bandsaw		Memo		0.00				<u></u>			۷_یداندان
Jeaspa Bandsaw		Cut blank 2	700" long		•						
110				0.00							

0.00

\*110\* HAAS I

HAAS CNC vertical machine #1

Memo

Mill as per Dwg and Folio FA929
Folio rev: AA
Dwg Rev: 2

Deburr

NCR:	Yes	/	No

												DQA:	Date:	
NCR:	Yes	/ No					WORK ORDER NON-C	10:	NFORM	MANCE / UPDA	TE	QA Closed:	Date:	
Vork Ord	er:						DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part	Part No. Scrap Use-as-is NCR No. Work Order Update								Thern	Machining noforming	Crosstube Small Fab Finishing composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Des	crip	otion of work order update	I	nitial	Action		Sign &		
Cause		Date	Step	Qty		С	or Non-conformance	Ch	ief Eng	Descripti	ion	Date	Verification	QC Inspector
oc/Data uip/Tooling perator aterial tup ther ocess applier aining	Fooling Coling Colons C							Alli	T.CATE.	CORY				
	· •	<u>.</u>		<u></u>			General	AUL	T CATE	JURY			·	
Lanu	Bending Centre Not Concentric to O/S Cracks Broken/Damaged Burrs Cuffs Contamination Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion  Bend BoM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing								Instruct Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/Uncl nance lled	lear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Torque Waves in Extrusion Drawing  Turning Sequence Finish								Out of Sequence					

Outside Dimensions

Wave/Twist in Tube

Folio

<b>Work Orde</b> <i>May-27-13 12:4</i>		2190		*102	190*							Page 2
Item ID: Revision ID:	D4078-1			Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop	*N:	S1*
Item Name: Start Date: Required Date:	Clamp Half 5/29/13 6/03/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	D:			·	У	"N	S2*
Reference: Approvals:	Process Pl	an:	Date:	Tooling:	Da	ate:	-	•	Run	Start Stop	*N	R1*
Sequence ID/	QC:	Operation	Date:	SPC (Y/N): Set Up/	Tool ID	Tool #	Plan	Accept	t Rej	ect	Reject	R2*
Work Center II 120	D	<b>Description</b> QC2- Inspect parts off ma	achine FAI/FAIB	Run Hours			Code	Qty	Qty		Number	Stamp
*120* QC Quality Control		Memo		0.00					2 _	<i>P</i>		SL 13-6-10
130		QC8- Inspect parts - seco	nd check	0.00	L 13/06/1	$\mathcal{D}$						·
*130* QC Quality Control		Memo		0.00				_12		B		
*1 <b>4</b> 0	٠.	Chemical Conversion Co	at per QSI005 4.1	0.00				12	0		BV 1:	3-6-10 .
HandFinish		Memo		0.00					- <i>- T</i>	<i>}</i>		

Memo

Hand Finishing

DQA:

Date:

NCR: Y	ICR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE													
		·						-	<u> </u>		QA Closed:	Dat	:e:	
Work Orde	r:					DISPOSITION				AGAINST DI	EPARTMENT,	_		_
Part N	o				····	Rework Scrap Use-as-is		ľ	Skid-tube Machining Moforming	Crosstube Small Fab Finishing	┥	Water Jet d. Eng. Coor.	Engineering Quality Other	
NCR N	lo					Work Order Update			Large Fab	Composite		Supplier		1
Root					Descri	ption of work order update	lr	nitial	Act	ion	Sign &			
Cause		Date	Step	Qty		or Non-conformance	Chi	ief Eng	Descr	ription	Date	Verification	n QC Inspector	r
oc/Data	$\Box$												·	
quip/Tooling	_													
perator	_							·						1
//aterial	_							•						
etup	_													
Other	┛													
rocess	_													
upplier					- -								·	
raining												-		
Inapproved			L											
							AUL'	T CATE	GORY					
Landir	ng G	ear			ς	General				_	<b>-</b>	г	<b>¬</b> ≟	
	_	Bending			<u> </u>	Bend	-	Grain		<u> </u>	Ovalized	. }	Pressure/Forced	
	_	Centre No	ot Concer	ntric to	o/s  _	BOM/Route	-	Hardwa		<u> </u>	Over/Under	-	Temperature/Cur	е
]	—	Cracks			<u> </u>	Broken/Damaged	-	•	on Incomplete	L	Part Incorred	<b> -</b>	Weld	
	_	Crushed/0	Crimped			Burrs	$\boldsymbol{\vdash}$		ions Incomplete/l	Jnclear	Part Lost/Mi	ssing [	Wrong Stock Pulle	₽ď
	ٰٰٰٰٰ	Cuffs			<u> </u>	Contamination	Ш	Mainte	nance	<u> </u>	Part Moved			
		Heat Trea	t			Countersink	Ш	Mislabe	led		Positioned V		_	
		Inspection	n Strip in	Tube	L	Cut Too Short	Ш	Misread	1	<u></u>	Power Loss/	Surge [	Other	
		Ripples in	Bend			Drill Holes	$\vdash$	Offset					<u> </u>	
·		Torque W	aves in E	xtrusio	n [_	Drawing		Out of (	Calibration				<u> </u>	
ĺ		Turning So	equence			Finish		Out of S	Sequence					
		Wave/Tw	ist in Tub	oe .		Folio		Outside	Dimensions					

Work Order ID 102190  May-27-13 12:41:00 PM  D4078-1				Page 3			
Item ID: Revision ID: Item Name:	D4078-1 Clamp Half			Accept	*N90004010	↑* Setup Start Stop	14.21
Start Date: Required Date: Reference:	5/29/13 6/03/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item ID: Customer:		
Approvals:	Process Pla	nn:	Date:	Tooling: SPC (Y/N):	Date:	Run Start - Stop -	"NRT"
Sequence ID/ Work Center II 150 *150* Powdercoat Powder Coating	o UJD	Operation Description Black Sandtex(Ref:4.3.5.  Memo	7) per QSI005 4.3	Set Up/ Run Hours 0.00 Slar 0.00 Ter	Tool ID Tool # Plan Code Tlime, 7:45 mp, 32001- Wlime, 8:15		Reject Insp. Number Stamp
*160 *160* QC Quality Control		QC3- Inspect Part Finish  Memo		0.00		-1-2x-6	III 13/06/
170 *170* Packaging		Identify as per dwg & Sto	ck Location: 5T092	0.00		_12x	M.D. 13/06/11

Memo

Packaging

NCR:	Yes	/	No

NCR: Y	es / No				WORK ORDER NON-O	CONFC	DRN	1ANCE / UP[	DATE			
										QA Closed:	Date	2:
Work Orde	r:			. <u>.                                   </u>	DISPOSITION	_			_	EPARTMENT	_	
Part N	o	<u> </u>			Rework Scrap	]		Skid-tube Nachining	Crosstube Small Fab		Water Jet d. Eng. Coor.	Engineering Quality
NCR N	0				Use-as-is Work Order Update	]   Th		oforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	iption of work order update	Initia	al	Act	ion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief E	Eng	Descr	ription	Date	Verification	QC Inspector
Ooc/Data				•								
quip/Tooling							l					
Operator							ļ					
Material							i					
etup												
Other [										Í		
rocess		1					ļ			ļ		
iupplier		ļ										
raining					·							
Inapproved												
					F	AULT CA	ATEG	ORY				
\ Landir	g Gear				General							
	Bending	-			Bend	Gra	ain			Ovalized		Pressure/Forced
[	Centre N	ot Conce	ntric to (	o/s	BOM/Route	Har	dwar	e		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Insp	ectio	on Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped			Burrs	Inst	ructio	ons Incomplete/U	Inclear	Part Lost/Mi	ssing	Wrong Stock Pulled
, [	Cuffs Contamination					Ma	inter	nance	`	Part Moved		_
Heat Treat Countersink							label	ed		Positioned V	Vrong	
Inspection Strip in Tube Cut Too Short							read			Power Loss/	Surge	Other
Ţ	Ripples in	n Bend			Drill Holes	Offs	set		-			
Ī	Torque V	Vaves in E	extrusion	n	Drawing	Out	of Ca	alibration				
	Turning S	Sequence			Finish	Out	t of Se	equence				
Ī	Wave/Tv				Folio	Out	tside I	Dimensions				

DQA:

Date:

<b>Work Orde</b> <i>May-27-13</i> 12:41		2190		*102				Page 4			
Revision ID:	D4078-1 Clamp Half			Accept	*N900	<b>040</b>	100	)* s	etup Start	I VI	S1* S2*
Start Date: 5	5/29/13	<b>Start Qty: 12.00</b>	*12*		Cust Item I	D:					
Required Date: 6	5/03/13	Req'd Qty: 12.00	*12*		<b>Customer:</b>						
Reference:	• .		• •						_	•	•
Approvals:	Process Pla	ın:	Date:	Tooling:	Da	ate:		R	tun Start	1/1	R1*
	QC:		Date:	SPC (Y/N):	Da	ate:			Stop	*N	R2*
Sequence ID/ Work Center ID	)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

0.00

Memo

Quality Control

MUJ 1306-12 PBO67

											DQA:	Date	e:
NCR:	Yes	/ No				WORK ORDER NON-O	COI	NFOR	MANCE / UPDATE				
											QA Closed:	Date	2:
Work Orde	or.					DISPOSITION			AGAI	NST DE	PARTMENT	/PROCESS	
WOIK OIG	-					Rework	ן ו		Skid-tube Crosst	ube	1	Water Jet	Engineering
Part I	VΩ					Scrap	-		Machining Small	-	Pro	d. Eng. Coor.	Quality
	-					Use-as-is	† †		noforming Finish	_	4	re/Packaging	Other
NCR I	No.					Work Order Update	]		Large Fab Compo			Supplier	
								<u> </u>					
Root						ption of work order update	1	Initial	Action		Sign &		
Cause		Date	Step	Qty	ļ <u>'</u>	or Non-conformance	Cr	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data	Ш												
Equip/Tooling	$\sqcup$											:	
Operator	Щ												
Material	Ш												
Setup	Ш					•							
Other	Ш												
Process	$\sqcup$												
Supplier	Ш			ļ									
Training	Щ												Ì
Unapproved	Ш		<u> </u>	i			<u></u>	T 64 TE	CORY				
			-				AUL	LT CATE	GORY				
Landi		1				General	$\overline{}$	lo:			Ovalized	1	Pressure/Forced
	-	Bending			~	Bend BONA/Bounts	$\vdash$	Grain		$\vdash$	-1	<u> </u>	Temperature/Cure
	-	Centre N	ot Conce	ntric to	<sup>0/s</sup>  -	BOM/Route	$\vdash$	Hardwa		-	Over/Under	<del> </del>	<del></del>
	$\vdash$	Cracks	'C		-	Broken/Damaged	$\vdash$	-	ion Incomplete	 	Part Incorred	<b>-</b>	Weld
	Н	Crushed/	crimped		<u> </u>	Burrs	<u> </u>	-	tions Incomplete/Unclear	-	Part Lost/Mi Part Moved	22HIR	Wrong Stock Pulled
	Н	Cuffs	. •		<u> </u>	Contamination	$\vdash$	Mainte		$\vdash$	4	drong.	
	1 1	Heat Trea	at		1	Countersink	ı	Mislabe	elea		Positioned V	vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

## **Picklist Print**

May-27-13 12:40:59 PM

Work Order ID:

102190

Parent Item:

D4078-1

Parent Item Name:

Clamp Half

**Start Date: 5/29/13** 

Required Date: 6/03/13

Page 1

Start Qtý: 12.00

Required Qty: 12.00

Comments:

Ipp Rev:A New Issue 10-05-07 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seg ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.250X01.250 6061-T6 Bar 1.25 x 1.25		Purchased	No			100	f	31.6501	0.223	2.8168416	x SL	13-6	-8_
				<b>Location</b>		Loc Qty	. <u>Lo</u>	c Code					
				MAT003	21	31.6501421 0.6638421					•	•	
				12364	19	2.978							

28.0083

124443

2.82

									•	DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-	CON	IFOR1	MANCE / UPD		QA Closed:	Date:	
Work Orde	·				DISPOSITION				AGAINST DE		/PROCESS	
Part N NCR N	· o				Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root Cause	Date	Step	Qty		iption of work order update or Non-conformance	l l	nitial ief Eng	Actic Descrip		Sign & Date	Verification	QC Inspector
Ooc/Data  quip/Tooling Operator Material Setup Other Process Supplier Fraining Unapproved										١		
						FAUL	T CATE	GORY				
Landin	g Gear				General	_			_	1	p	7
	Bending Centre N Cracks		ntric to	o/s	Bend BOM/Route Broken/Damaged		Grain Hardware Inspection Incomplete			Ovalized Over/Under Part Incorred Part Lost/Mi	ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube					Burrs Contamination Countersink		Mainte Mislabe	eled	lclear	Part Lost/Mi Part Moved Positioned V Power Loss/	Vrong	Other
}	Ripples in		lube	-	Cut Too Short Drill Holes	╸┡═┥	Misread Offset			I ower ross/		Journal
	Torque V		Extrucio	,	Drawing	_ ⊢		Calibration				
ļ	Turning			"   <del> </del>	Finish	Out of Calibration Out of Sequence						

Outside Dimensions

Wave/Twist in Tube

Folio

DART AEROSPACE LTD	Work Order:	102190
Description: Clamp Half	Part Number:	D4078-1
Inspection Dwg: D4078 Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.203	+0.005/-0.001	-204			Vern	SL-10
R0.13	+/-0.030	-13			Net N	3K-10
1.882	+/-0.010	1.682				
0.310	+/-0.010	310		-		
0.375	+/-0.010	-345				
R0.06	+/-0.030	-06	/			
R0.73	+/-0.030	-43	/			
R0.38	+0.010/-0.000	380				
0.025	+/-0.010	-026			N-C+	
0.71	+/-0.030	-7/0			1/0-	
0.75	+/-0.030	751			The Co	
0.23	+/-0.030	-229			Noin	2/-10
		<u> </u>			uc.,	
-				<del></del>		
		WA H		<del> </del>		*
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Measured by:	SL	Audited by:	and	Preliminary Approval:	
Date:	13-6-9	Date:	13/06/10	Date:	

Rev	Date	Change	Revised by	Approved
Α	10.10.07	New Issue	KJ 🕪	20

